UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

### NOTICE OF ALLOWANCE AND FEE(S) DUE

23373 7590 09/14/2010 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON DC 20037 EXAMINER
BEST, ZACHARY P
ART UNIT PAPER NUMBER
1295

DATE MAILED: 09/14/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.			
10/566,713	02/01/2006	Makihiro Otohata	Q92948	9015			
TITLE OF INVENTION: FILM-COVERED BATTERY AND FABRICATION METHOD							

APPLN, TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	12/14/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT, PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FFE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

# Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

appropriate. All further indicated unless correcte maintenance fee notifical	correspondence includir ed below or directed oth	or transmitting the 188 ig the Patent, advance of herwise in Block 1, by (	orders and notification of r (a) specifying a new corres	naintenance fees wi pondence address;	ill be and/or	mailed to the current (b) indicating a sepa	correspondence address as arate "FEE ADDRESS" for
		iock 1 for any change of address)	Note Feel paps have	e: A certificate of r s) Transmittal. This ers. Each additional	nailing certif paper of mai	can only be used for icate cannot be used for such as an assignme line or transmission.	or domestic mailings of the for any other accompanying ent or formal drawing, must
SUITE 800	VANIA AVENUE			Cont	ificate	of Mailing or Trans	
WASHINGTON	I, DC 20037						(Depositor's name)
			_				(Signature)
							(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTO	RNEY DOCKET NO.	CONFIRMATION NO.
10/566,713	02/01/2006	•	Makihiro Otohata	•		Q92948	9015
TITLE OF INVENTION				ı			
APPLN, TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE	AID ISSUE FEE TOTAL		
nonprovisional	NO	\$1510	\$300	\$0	\$0 \$1810		12/14/2010
EXAM	INER	ART UNIT	CLASS-SUBCLASS				
BEST, ZA	CHARY P	1795	429-122000				
"Fee Address" ind PTO/SB/47; Rev 03-0 Number is required.	ondence address (or Cha 3/122) attached. ication (or "Fee Address i2 or more recent) attach	inge of Correspondence  "Indication form led. Use of a Customer	For printing on the p     (1) the names of up to or agents OR, alternatii     (2) the name of a single registered attorney or a 2 registered patent attolisted, no name will be  THE PATENT (print or typens of the print of typens of the print or typens of the print of typens of the print or typens of the print of typens of the print of the print of typens of the print of the print of typens of the print of the print of typens of	3 registered patent vely, e firm (having as a agent) and the name meys or agents. If n printed.	attorn	era 2	
	less an assignee is ident h in 37 CFR 3.II. Comp 3NEE	ified below, no assignee eletion of this form is NO	e data will appear on the p DT a substitute for filing an (B) RESIDENCE: (CITY	atent. If an assigne assignment. and STATE OR Co	OUNT	RY)	oup entity  Government
4a. The following fee(s):  Issue Fee Publication Fee (N	o small entity discount p		b. Payment of Fee(s): (Plea A check is enclosed. Payment by credit car The Director is hereby overpayment, to Depo	d. Form PTO-2038	is atta	ched.	shown above) eficiency, or credit any n extra copy of this form).
	s SMALL ENTITY state	as. See 37 CFR 1.27.	b. Applicant is no lon				
NOTE: The Issue Fee and interest as shown by the	d Publication Fee (if req records of the United Sta	uired) will not be accepte tes Patent and Trademar	ed from anyone other than t k Office.	he applicant; a regis	tered a	ittorney or agent; or th	he assignee or other party in
Authorized Signature				Date			
Typed or printed name				Registration No	D		
This collection of inform an application. Confident submitting the complete this form and/or suggesti Box 1450, Alexandria, V Alexandria, Virginia 223	ation is required by 37 C tiality is governed by 35 d application form to the ons for reducing this but firginia 22313-1450. DC 13-1450.	CFR 1.311. The informati U.S.C. 122 and 37 CFR USPTO. Time will var rden, should be sent to the ONOT SEND FEES OR	ion is required to obtain or r 1.14. This collection is est y depending upon the indivi- he Chief Information Office COMPLETED FORMS TO	etain a benefit by th imated to take 12 m idual case. Any cor er, U.S. Patent and 1 D THIS ADDRESS.	ne publ ninutes mment Fraden SENI	ic which is to file (and to complete, includir s on the amount of tin ark Office, U.S. Dep O TO: Commissioner	d by the USPTO to process) ag gathering, preparing, and me you require to complete artment of Commerce, P.O. for Patents, P.O. Box 1450,

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



### UNITED STATES PATENT AND TRADEMARK OFFICE

#### UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FILING DATE FIRST NAMED INVENTOR		CONFIRMATION NO.		
10/566,713	02/01/2006	Makihiro Otohata	Q92948	9015		
23373 75	90 09/14/2010		EXAMINER			
SUGHRUE MIO	N, PLLC	BEST, ZACHARY P				
2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			ART UNIT	PAPER NUMBER		
			1795 DATE MAILED: 09/14/201	0		

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 593 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 593 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

#### Application No. Applicant(s) 10/566,713 OTOHATA ET AL Notice of Allowability Examiner Art Unit Zachary Best 1795 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. This communication is responsive to 3/1/10. The allowed claim(s) is/are 1-13,15,16 and 18. 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). b) ☐ Some\* c) ☐ None of the: a) 🔯 All 1. A Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). \* Certified copies not received: \_\_\_\_\_. Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. Attachment(s) 1. | Notice of References Cited (PTO-892) 5. Notice of Informal Patent Application 2. Notice of Draftperson's Patent Drawing Review (PTO-948) Interview Summary (PTO-413), Paper No./Mail Date Information Disclosure Statements (PTO/SB/08). 7. X Examiner's Amendment/Comment Paper No./Mail Date 4. T Examiner's Comment Regarding Requirement for Deposit 8. X Examiner's Statement of Reasons for Allowance of Biological Material

9. ☐ Other .

/Zachary Best/ Examiner, Art Unit 1795 Examiner: Z. Best S.N. 10/566,713 Art Unit: 1795

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth

in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is

eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR

1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn

pursuant to 37 CFR 1.114. Applicant's submission filed on March 1, 2010 has been entered.

Claims 1 and 6 were amended. Claims 1-7, 12-13, and 15-16 are currently pending

examination.

2. The text of those sections of Title 35, U.S. Code not included in this action can be

found in a prior Office action.

EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or

additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR

1.312. To ensure consideration of such an amendment, it MUST be submitted no later than

the payment of the issue fee. Authorization for this examiner's amendment was given in a

telephone interview with Ms. Stacey Fluhart on September 7, 2010.

Application/Control Number: 10/566,713 Art Unit: 1795

- The application has been amended as follows:
  - (a) Cancel Claims 17 and 19.
- (b) Amend Claim 1 to replace the final clause "wherein the second area of each of the laminate films is formed substantially only in an area where said laminate film contacts the battery element that is sealed inside said laminate film" with the following "formed at least in an area where said laminate film contacts the battery element that is sealed inside said laminate film".
- (c) Amend Claim 8 to replace the entirety of the second clause "forming a cross-linked structure... laminate film contacts a part that is sealed" with the following "forming a cross-linked structure in said heat-seal resin layer in at least an area of said laminate film in which said heat-seal resin layer reaches a temperature equal to or greater than the melting point at the time of heat-sealing said laminate film and only in an area that is disposed inside an outer periphery of the heat sealed area, and at least in an area in which said laminate film contacts a part that is sealed".
- (d) Amend Claim 18 to delete all occurrences of the term "predetermined" and to replace the entirety of the second clause "irradiating an exposed area... where the battery contacts the laminate film" with the following "irradiating an exposed area of at least one of the laminate films, the exposed area disposed inside a heat-seal area to form cross-linked structures only within the exposed area and formed at least in an area where the battery contacts the laminate film, the heat sealed area being disposed at an outer periphery of the laminate film".

#### Claim Objections

Page 4

The objection to Claim 6 is withdrawn because Claim 6 was amended.

# Claim Rejections - 35 USC § 112

6. The rejection to Claim 3 is withdrawn because Claim 1 was amended.

### Claim Rejections - 35 USC § 102

- 7. The claim rejections under 35 U.S.C. 102(b) of Claims 1-7, 12-13, and 15-16 as being anticipated by Bannai et al. (US 6,503,656 B1) are withdrawn because Claim 1 was amended.
- The claim rejections under 35 U.S.C. 102(b) of Claims 1 and 14 as being anticipated by Yoshida et al. (WO 01/56097) are withdrawn because Claim 1 was amended.

# Allowable Subject Matter

9. Claims 1-13, 15-16, and 18 are allowed.

The following is an examiner's statement of reasons for allowance: the prior art of record does not teach or suggest a film-covered battery having a pair of laminate films enclosing a battery element, wherein an outer periphery of the laminate film is heal-sealed, and a cross-linked structure is formed within the area of the heat-sealed area, and the cross-linked structure is formed at least in an area where said laminate film contacts the battery

Art Unit: 1795

element sealed therein, and method of making thereof as is claimed in independent Claims 1, 8, and 18.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary Best whose telephone number is (571) 270-3963. The examiner can normally be reached on Monday to Thursday, 7:30 - 5:00 (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dah-Wei Yuan can be reached on (571) 272-1295. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1795

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <a href="http://pair-direct.uspto.gov">http://pair-direct.uspto.gov</a>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Zachary Best/ Examiner, Art Unit 1795

/Dah-Wei D. Yuan/ Supervisory Patent Examiner, Art Unit 1795